

ABSTRACT OF THE DISCLOSURE

A titanium semiconductor bridge igniter (10, 10') has a substrate (12, 12') on which is carried a pair of spaced-apart pads (18a, 18b) connected by a bridge (20). The pads (18a, 18b) and bridge (20) are made of a layer of polysilicon (22) or crystalline silicon (22') covered by a layer of titanium (24). Metal lands (26a, 26b) overlie the pads (18a, 18b) but leave the bridge (20) exposed so that it can be placed in contact with an energetic material charge (42). A method of stabilizing the titanium semiconductor bridge igniter (10, 10') against temperature-induced variations in electrical resistance of bridge (20) includes heating the titanium semiconductor bridge igniter (10, 10') to an elevated temperature, e.g., from about 37°C to about 250°C.